

Remarks

Claims 1 and 3 – 5, and 19 are pending.

Claim 1 has been clarified to mention that the bearer rings have the same wall thickness i.e. they have uniform thickness as opposed to variable thickness. This is supported by para [0015] of the application.

Claim 1 has also been amended to delete all mention of “hollow” and “non-hollow.” As noted by the examiner, the entire tube/shaft is hollow. Accordingly, these changes are believed to overcome the 35 USC 112 rejection.

The rejection of claims 1 and 3-5 under 35 USC 103(a) as being unpatentable over Suzuki is respectfully traversed for the following reasons:

First, Suzuki does not show “that the tube expands to form said cam regions, wherein the diameter of the tube in said cam region are greater than the diameter of the tube at the non cam regions.” Suzuki’s patent discloses expansion of their tube only in their non-cam regions (see fig.1, fig. 5, fig. 11), and accordingly, their diameters in the cam regions are less than their non-cam regions.

Second, claim 1 has also been amended to recite “wherein the bearer rings possess the same wall thickness.” In this respect, applicant notes that in the last office action the examiner appears to concede (see page 5 of the office action) that Suzuki has bearer rings 3a with wall thickness that are not constant, unlike applicants claims.

Applicant also wishes to point out that Ebbinghaus does not show bearer rings that have constant wall thickness (see Ebbinghaus figures 1 and 2). Moreover, applicant respectfully submits that the two processes of Suzuki and Ebbinghaus produce sufficiently different cam shafts that a person of skill in the art would not combine the various elements from each disclosure to arrive at applicant’s claims. For instance, Suzuki discloses expansion of their tube only in their non-cam regions; whereas Ebbinghaus shows expansion at the cam regions. Also, in Ebbinghaus the wall thickness in the cam regions get thicker as a result of their process (see

Ebbinghaus figure 1, and col. 4, line 65 – col. 5 line 5); in contrast no such change in wall thickness is mentioned by Suzuki. Finally, Suzuki mentions that their shaft shrinks during the process; however, no mention is made of this by Ebbinghaus. Accordingly, because Suzuki and Ebbinghaus cam shafts are so different, the two references should not be combinable.

Applicants believe the claims are in condition for allowance and respectfully solicit a Notice of Allowance.

The Commissioner is hereby authorized to charge payment of any fees required associated with this communication or credit any overpayment to Deposit Account No. 50-3881. If an extension of time is required, please consider this a petition therefore and charge any additional fees which may be required to Deposit Account No. 50-3881. A duplicate copy of this paper is enclosed.

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Respectfully submitted,

By


Richard Y.M. Tun

Registration No.: 56,594

BERLINER & ASSOCIATES

555 West Fifth Street, 31st Floor

Los Angeles, California 90013